19990315.ba v02_n461.bam.990315 v02_n462.bam.990315 v02_n463.bam.990315

>From ???@??? Tue Mar 16 05:42:09 1999
Message-Id: <199903151205.GAA02025@sco.theporch.com>
Date: Mon, 15 Mar 1999 06:04:59 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2461

BOATANCHORS Digest 2461

Topics covered in this issue include:

1) RE: Aligning the 10B/20A Central Electronics exciters
by Larry Kayser <kayser@rideau.net>
2) Old Tubes- Brown base-gluing compound.
by David Stinson <arc5@ix.netcom.com>
3) Re: Help with sideband suppresson in CE 20A
by "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>
4) RE: Sprague TO-6
by Maurice Weinschenker <morry@ix.netcom.com>
5) Need Crystal
by "James D. Mayfield" <kb9bnr@revealed.net>
6) Midland,Tx Hamfest.
by "Spencer Petri" <spetri@e-tex.com>
7) Address for JAN crystals or other Drake source
by Scott Robinson <spr@earthlink.net>
8) ADJUSTING DIAL ON DRAKE R4C
by Jim Roik <jnroik@escape.ca>
9) 1 Megom=hm resistors, new, cheap!
by Scott Robinson <spr@earthlink.net>
10) HP 200 AB
by Dan Martin <dmartin@visuallink.com>
11) EF Johnson Calibrator 250-25
by Robert Lawson <lawson_r@popmail.firn.edu>
12) Want Cabinet for HQ120X
by Greg Carter <kx4r@atl.mindspring.com>
13) Need Thordarson Mod Xfmr Info
by Greg Carter <kx4r@atl.mindspring.com>
14) HP quality,....what next?
by "Arden Allen" <gumbear@pacbell.net>
15) NC-183D question
by kf4kl@ipass.net (Doug Hall)
16) RE: Aligning the 10B/20A Central Electronics exciters
by "Roberta J. Barmore" <rbarmore@indy.net>
17) Re: HP quality,....what next?
by Sound Practices <sp@eden.com>
18) Re: HP quality,....what next?

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     by Scott Robinson <spr@earthlink.net>
 19) Re: HP quality,....what next?
     by "Chuck O'Neal" <coneal@ma.ultranet.com>
 20) RE: ADJUSTING DIAL ON DRAKE R4C
     by "Jim Berry" <basalop@gte.net>
 21) Re: WTB R-388 Tuning Slugs
     by Morris Odell <morriso@vifp.monash.edu.au>
 22) Re: HP quality,....what next?
     by Bill <billross@txdirect.net>
 23) Re: HP quality,....what next?
     by "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
 24) Re: HP quality,....what next?
     by Sandra L Knepper <slkst29+@pitt.edu>

----------------------------------------------------------------------
Message-Id: <2.2.32.19990314180409.014760b0@rideau.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 14 Mar 1999 13:04:09 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Larry Kayser <kayser@rideau.net>
Subject: RE: Aligning the 10B/20A Central Electronics exciters
```

Greetings:

I have been reading this thread and find only one small difference from Sandy's wise admonition. IF you have access to a Modern Spectrum Analyzser, and the notch filter to go with it, one can do the Sideband adjustment with almost trivial ease. Many of the modern RF service associations have excellent, in fact almost wonderful, spectrum analysers - borrowing one of those can make the exercise rather simple.

Some may find that the old way, with its obvious error prone misques, is still the best. I suggest going at it both ways. The first time I had a real competent spectrum analyser I saw things I had never been able to quantify before.

Good Luck, Wes, W9DYV admitted several times that the process was onerous.... A hint for all to listen to carefully...

Larry
VA3LK

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Message-ID: <36EBFEAC.5D68563D@ix.netcom.com>
Date: Sun, 14 Mar 1999 12:23:40 -0600
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
```

To: Old Tube Radios <boatanchors@theporch.com>
Subject: Old Tubes- Brown base-gluing compound.
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Can anyone tell me what the brown, bubbly-looking compound
used for sticking the bakelite bases of older tubes is?
And is there some way to make it turn loose without
breaking the glass?

--
73 DE David Stinson AB5S
arc5@ix.netcom.com

Occupied Republic of Texas, CSA

"Gentlemen, you have no reason to
be ashamed of your Confederate dead.
Make sure they have no reason to
be ashamed of you."
 R.L. Dabney, Chaplain to Stonewall Jackson

Message-Id: <3.0.1.32.19990314132932.006badfc@miavx1.muohio.edu>
Date: Sun, 14 Mar 1999 13:29:32 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>
Subject: Re: Help with sideband suppresson in CE 20A
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Jim -
>
>I am totally confused by your statement regarding the 90 degree phase shift
>obtained between a transformer's primary and secondary. It is my
>understanding that there is no phase shift of consequence between the
>primary and secondary unless the secondary is loaded reactively so much that
>it reflects some of that reactive load to the primary.
>
>Mike B. Feher, N4FS
>
Hi Mike,

I could be wrong--it has happened!--but I believe you may have
misunderstood my remarks. What I was saying is that the phase of the
VOLTAGE appearing on the secondary of a transformer is shifted 90 degrees

from the CURRENT through the primary. This isn't a profound insight, of course, but just a restatement of Faraday's law. As you probably recall, Faraday's law says that the voltage induced across an inductance L is proportional to the rate of change (i.e., time derivative) of flux through the inductance. For a simple inductor carrying a current I(t), V(t)=L dI(t)/dt. If I(t) is a sine function, the V(t) is a cosine function -- hence the 90 degree phase shift.

The misunderstanding probably arises from the fact that the primary winding of a transformer (an I.F. transformer, for example) is usually not driven by a current source. For instance, if one displays the voltage waveforms of the primary and secondary windings of an I.F. transformer at resonance on an oscilloscope, they will be in phase. Nevertheless, the secondary voltage and the primary CURRENT will be shifted by 90 degrees. My remarks were just commenting on this fact. Sorry for sowing confusion.

73,

Jim W8ZR

Message-ID: <36EC0765.3F9F3C59@ix.netcom.com>
Date: Sun, 14 Mar 1999 14:00:53 -0500
From: Maurice Weinschenker <morry@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Sprague TO-6
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Sure cud use a Manual fer my newly aquired Sprague TO-6 Capacitor analyzer. Anybody out their who cud copy fer me. I'll pay costs etc. of course.
Mny tnx in advance.
Best 73 Morry K3DPJ

Message-Id: <3.0.32.19990314135604.00a787a4@revealed.net>
Date: Sun, 14 Mar 1999 13:56:11 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "James D. Mayfield" <kb9bnr@revealed.net>
Subject: Need Crystal
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I am looking for the 3393.6 KHz BFO crystal for the Heathkit SB-301 receiver, if you have one and would like to part with it, please drop me a line.

73 Dave

****
Dave Mayfield KB9BNR
Personal Web Page
http://home.revealed.net/qste/bnr/index.html

Message-ID: <000101be6e54$00df6060$f22519ce@default>
From: "Spencer Petri" <spetri@e-tex.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Midland,Tx Hamfest.
Date: Sun, 14 Mar 1999 13:51:06 -0600
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Greetings,

Anyone going there on the 20th or 21th of this month. I'll be there Saturday until sometime in the afternoon. My first time there but it's my understanding that it's pretty good.

es 73 de Pete WA5JCI

Message-Id: <v03007800b311cef12d9c@[208.255.75.81]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 14 Mar 1999 12:42:14 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Robinson <spr@earthlink.net>
Subject: Address for JAN crystals or other Drake source

Folks,

I now have my recently arrived R-$a up & running and am loking at crystal requirements. One of the kind people who enlightened me about these receivers suggested JAN crystals as a source of correclty cut parts for Drake use. I therefore need contact information for them, and maybe other suggestions for sources.

All help gratefully recieved,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Message-Id: <3.0.1.32.19990314152147.006c9004@mail.escape.ca>
Date: Sun, 14 Mar 1999 15:21:47 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: Jim Roik <jnroik@escape.ca>
Subject: ADJUSTING DIAL ON DRAKE R4C
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

How does one adjust the dial on an R4C receiver so that the major divisions coincide with the kHz division?

On mine when I am at 0 on the kHz dial, the 100 kHz dial is the equivalent of about 40 kHz to the left.

Also, what has been the experience with the solid state tubes. The on I got is loaded with the solid state tubes, and I am on the verge of replacing them with the real ones. Would this be the right thing to do from a performance point of view. Regardless, I'm just about ready to do it because it restores order to the universe and makes thing the way they should be.

Best wishes.

Jim VE4AQ

Message-Id: <v03007807b311dfc82287@[208.255.75.40]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 14 Mar 1999 13:54:32 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Robinson <spr@earthlink.net>
Subject: 1 Megom=hm resistors, new, cheap!

Folks,

I have a several lifetime supply of 1 Meg , 1/4W carcon film 5% resistors.
I am offering them nearly free as follows:

100 pieces $2 shipped in CONUS.

These are great fro replacing those former 1 meg now 2+ meg resistors in your rigs.

I think I also have a slew of 180 ohm resistors, same type. Same deal except the quantity will be approoximate.

The two bucks covers the cost of a padded envelope and postage.

As the eastern philosophers don't say, "OOOOHHHMMMM"

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Message-ID: <36EC5720.4A2F@visuallink.com>
Date: Sun, 14 Mar 1999 19:41:04 -0500
From: Dan Martin <dmartin@visuallink.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HP 200 AB
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, folks:

Two questions on the Hewlett Packard 200AB audio oscillator:

1. Anyone have a schematic/owners manual for this unit or know a source of one?

2. Anyone know of a paint source for "Hewlett Packard Brown"? (R&R Designs Heathkit #160 Test Equipment Tan for later 60's and 70's Heathkit test equipment might come close. My Heathkit IM-18 VTVM cabinet is real close to the HP cabinet color.)

I've come by an HP-200AB here for a song. I was just looking for a serviceable audio oscillator for the bench and instead received a mint museum piece. I mean it is perfect. Mint front panel. Spotless, original interior with "Hewlett Packard" label tubes. My scope and various speakers in the shop suggests it works as well as it looks. But ... a previous owner, probably the *only* previous owner, wrote his name in permanent black felt pen across the top front edge of the otherwise like-new cabinet(!) For the few dollars I paid for it I shouldn't care but now I have this fixation about restoring the cabinet to original. The rest of the cabinet looks like it came out of the box.

Ideas? I guess it isn't worth a professional repaint, of course, but if you really like old, classic HP test equipment it is a tempting consideration. Less the felt pen name (!) this unit would literally pass for new.

Regards,

Dan
WB4GRA
Winchester, VA

Date: Sun, 14 Mar 1999 18:51:54 -0500
From: Robert Lawson <lawson_r@popmail.firn.edu>
Subject: EF Johnson Calibrator 250-25
To: Old Tube Radios <boatanchors@theporch.com>
Cc: baswaplist@foothill.net
Message-id: <36EC4B9A.6A91@popmail.firn.edu>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Fellow BA'er,

I am still needing to find/obtain a schematic/brochure for my recently acquired EF Johnson calibrator 250-28. Runs a 6BH6. 100 kc crystal. I want to install it in my National NC-183D.

If think you might have such information in your files, please take a looksee, as I have not received any responses in past postings of need.

Thanks in advance.

73 Robert WPE4FGR W4RL Pensacola Florida

Message-Id: <3.0.5.16.19990314163921.3b5f0b58@pop.atl.mindspring.com>
Date: Sun, 14 Mar 1999 16:39:21 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Greg Carter <kx4r@atl.mindspring.com>
Subject: Want Cabinet for HQ120X
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Anyone out in BA land have a derelict HQ120X cabinet

that they will part with ???
Let me know !
73, Greg KX4R
kx4r@mindspring.com

Message-Id: <3.0.5.16.19990314163714.3b5f90a4@pop.atl.mindspring.com>
Date: Sun, 14 Mar 1999 16:37:14 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Greg Carter <kx4r@atl.mindspring.com>
Subject: Need Thordarson Mod Xfmr Info
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Howdy Gang !
Can anyone out there give me the specs on a
Thordarson Modulation Transformer # T 21 M 54 ??
Any help will be greatly appreciated !
Tnx and 73 !
Greg KX4R
kx4r@mindspring.com

Message-Id: <199903150226.SAA08581@mail-gw2.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HP quality,....what next?
Date: Sun, 14 Mar 1999 18:27:47 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

BA test equipment fanciers;

It's a long, slow haul, repairing, restoring and calibrating my herd of BA test equipment. When a piece is finished it sure feels good to know I have another half ton of capability on the bench. But, on the road to restoration, the old timers grudgingly give up the dark secrets about their origins. Slowly, I'm learning the gruesome details of HP quality problems. In particular, the sloppy and incomplete wiring I'm finding in piece after piece of Hewlett Packard's BA era stuff. Cold solder joints, at least one in each piece. Missing wires! Wires not even connected on one end, just hanging in mid air!!

The 608E signal generator now on my bench has been a new surprise, the free end of a wire that was supposed to be connected to a rotary switch rotor wiper contact terminal was instead poking through an opening in the switch wafer and laying against the rotor ring contact and making a good enough contact that the function of the switch was acting normally!!! When lubing up the switch I spied a wire lead sticking out at an angle from the wafer and my first thought was a wire clipping had fallen into the switch, something I find frequently in equipment. But when I went to remove it I found it to be a stripped and tinned length of hook-up wire that was never connected and soldered to its proper terminal, the terminal itself, a half an inch away, had never seen solder!!!!

Is it no wonder some of our old friends meet such tragic ends, victims of frustrated owners who don't have the patience and insight into that makes the world of electronics such a place of wonderment? The moral of the story: If something is flakey, unreliable, goofy or stupifying about the way a BA operates, take a careful look at the innards to see if it was ever FINISHED BEING BUILT!

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

From: kf4kl@ipass.net (Doug Hall)
To: Old Tube Radios <boatanchors@theporch.com>
Cc: BOATANCHORS@LISTSERV.TEMPE.GOV
Subject: NC-183D question
Date: Mon, 15 Mar 1999 03:07:37 GMT
Message-ID: <36ec75a1.22512487@DOUGHALL>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: quoted-printable

Hi All,

Today I picked up an NC-183D with the original manual. I bought the receiver from the original owner, and a close examination after I got it home revealed that under the dust is an NC-183D that's as close to a new one as I'm ever going to get. This is a really beautiful specimen - no dings or scratches, all knobs correct, dials nearly perfect - just absolutely beautiful inside and out.

I noticed that there were two line cords coming out of the rear panel, so I removed the bottom cover to see what the 2nd cord was for. Turns out the previous owner added a "Dampp-Chaser" at some point. It looks like it belongs there, but it's not shown in the manual. Was this a common mod?

Anyway, here's my question. On the inside of the bottom cover, written in what looks like red pencil (or maybe a red grease pencil) is the following:

RG #3129
7/21/52

RG #3323

9/22/52

Does anyone have any idea what this might mean? I thought it might be some sort of factory modification or service info.

The previous owner claims that the receiver has been stored in his closet for over 25 years, and that he used it with a Johnson 500 prior to that. It certainly has not seen much use, from the looks of it. Everything's original, so a re-capping is in order, but I'm really looking forward to getting this old girl powered up.

I feel like a kid at Christmas...

73,
Doug Hall, KF4KL

P.S. The manual for this receiver is in such good shape that I've decided to scan it and produce a .PDF file. If you're interested in a copy when I'm done, drop me a note.

Date: Sun, 14 Mar 1999 22:18:05 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Aligning the 10B/20A Central Electronics exciters
Message-ID: <Pine.SUN.3.96.990314215052.8226A-100000@indy3>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

HI!

Spectrum analyzers are nice--you can't tune up the finals in a tube TV transmitter without one!--but to tweak two RF ports to a 90-degree phase difference, it's kind of hard to beat a dual-trace 'scope. 90 is trivially easy to find, and by varying the sweep rate, you can get 2 degrees per division.

...The earlier statement about phase shift across (through) a transformer has me scratching my head. It's probably true (considering the source) but it's not real *useful* in simple tube gear where we want two otherwise utterly identical sigs with a known and controllable phase-shift between them.

A simple R-C network (one of each, please) has a 45-degree phase shift at the corner frequency; two of them in a "bridge" configuration will give you outputs of very similar characteristics with a 90-degree phase difference. This trick was used in many of the ARRL Handbook rigs. Usually has a couple of trimmer condensers to set it, and it's not hugely broadband so you need one per band if you're making the SSB at the desired

output frequency. (Theory says it's dead-on at but one frequency--in practice, sideband suppression starts falling off as we move away from the corner freq. of the network but the phase shift vs. frequency isn't terribly rapid).
...I could swear I've seen "complementary" series L-C networks, with outputs taken from the junction of the Cs and Ls, used in this kind of application, but can't find any examples. It'd be finicky, I think. High Q would eat QSYing's lunch! (Generation of SSB at some handy IF is another thing). ...I'd better not speculate based on hazy memory, however, lest the real EEs take me out back and make me eat another calculus book without salt.

This SSB stuff is too darned recent for most of my reference library, and too old for the stuff I use for work! I have the original "SSB Jr." article somewhere around here and will look at how GE did it if it turns up. (Last time I did SSB, it was phasing method, at *audio* frequencies, for a gadget that got better response from a dial-up phone line, but it was all done with sand. Gadget worked but wasn't practical; with similar ones on the market and T1 looming, we dropped it).

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Date: Sun, 14 Mar 1999 21:22:32 -0600 (CST)
From: Sound Practices <sp@eden.com>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP quality,....what next?
Message-ID: <Pine.BSI.4.05L.9903142116000.21847-100000@matrix.eden.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Well, this might be a shock to some, but of the three pieces of S-line gear I have owned recently, two of them- one 1963 75S3A rx and a late model 32S3A- contained unsoldered connections that had gone undetected until the late 90s!
So, even COLLINS skipped a few QC details here and there. Radios worked fine for years anyway...at least there was an admirable mechanical connection to the terminal strips in these cases. More joints than a Grateful Dead concert in those sets, to be sure. 73 Joe N5KAT

Message-Id: <v0300780bb3122d8e686e@[208.255.75.40]>

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 14 Mar 1999 19:25:08 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Robinson <spr@earthlink.net>
Subject: Re: HP quality,....what next?

Arden Allen wrote:

The moral of the story: If something is flakey, unreliable, goofy or
stupifying about the way a BA operates, take a careful look at the innards
to see if it was ever FINISHED BEING BUILT!
>

My Stewart-Warner R-390A had a joint in the RF deck that was nicely crimped
to the tube socket lug but had never been soldered. But, even I make
mistakes...

Regards,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Message-ID: <051001be6e95$08ed3b60$40898018@coneal.ne.mediaone.net>
From: "Chuck O'Neal" <coneal@ma.ultranet.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP quality,....what next?
Date: Sun, 14 Mar 1999 22:36:38 -0500
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Interesting thread!
I thought all this time it was my bad luck!
Over the years I have had at least one unsoldered connection in just
about HALF of the receivers and test equipment I have had to troubleshoot.
This includes an SX-28A, RME 4350A, 75A4, Several Drakes, and an
HP 4800 vector impedance meter recently.
Hmmmm.....the good news is that the fix is simple....once found that is....
regards,

Chuck...K1KW

From: "Jim Berry" <basalop@gte.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: ADJUSTING DIAL ON DRAKE R4C
Date: Sun, 14 Mar 1999 21:18:30 -0800
Message-ID: <001701be6ea3$4346f180$de44fdd0@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>
> How does one adjust the dial on an R4C receiver so that the major divisions coincide with the kHz division?
>

You will find that you can hold on to the metal bezel and turn the knob and this will allow you set things wherever you wish.

>
> is loaded with the solid state tubes,

A purist, and most places that repaired these radios, would chuck the solid state tubes. In some cases the solid state tubes are better then the originals, but this is really something an operator has to decide. I am sure you will get more and better info on this subject from others. My personal opinion is to have both. Try the original tube configuration and then the solid state tubes and decide for yourself.

73 Jim K7SLI

Message-ID: <36EC9C1A.82B8ACAC@vifp.monash.edu.au>
Date: Mon, 15 Mar 1999 16:35:22 +1100
From: Morris Odell <morriso@vifp.monash.edu.au>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: WTB R-388 Tuning Slugs
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi all,

MIKHAEL_BROWN@HP-PaloAlto-om24.om.hp.com wrote:

> I just got an R-388 in need of restoration. It is missing 4 of the tuning
> slugs. Anyone know where I can buy some or have a parts set? Please e-mail
> any information.

When I got my 51J4 I thought I was missing a couple of slugs too, but they had just fallen off their wires and were rattling around inside or stuck in the coil forms. Have a good look in the radio before panicking!.

73

Morris VK3DOC

>
>
> Thanks and 73's
>
> Mike
> N6WIG

Message-ID: <36ECA256.D09FE62D@txdirect.net>
Date: Mon, 15 Mar 1999 00:01:58 -0600
From: Bill <billross@txdirect.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP quality,....what next?
Content-Type: text/plain; charset=koi8-r
Content-Transfer-Encoding: 7bit

Scott Robinson wrote:
>
> Arden Allen wrote:
>
> The moral of the story: If something is flakey, unreliable, goofy or
> stupifying about the way a BA operates, take a careful look at the innards
> to see if it was ever FINISHED BEING BUILT!
> >

One cold winter evening in 1970 my CE 100V suddenly had no output.

Upon opening the top of the cabinet in my dimmly lit shack it was immediately obvious that a number of tubes were minus that nice red glow indicating the filiment is lit. Turned the rig off, wresteling it from the cabinet and digging down through a maze of wiring undeneath revealed a heavy 6.3v filiment wire to a common tie point had never been soldered during its previous ten years of operation. A little tinning, and soldering, some more wrestling and we were back on the air inside thirty minutes.

Bill Ross K5LLK

Message-Id: <3.0.1.32.19990315073337.006c9610@192.168.0.1>
Date: Mon, 15 Mar 1999 07:33:37 +0100
To: Old Tube Radios <boatanchors@theporch.com>
From: "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
Subject: Re: HP quality,....what next?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello gang,

Please, add to the list a couple of unsoldered joints in the "highly valuable and sought after" Hammarlund SPC-10 SSB converter which matchs my SP-600... I got almost mad (well, just a bit more than usual) trying to find what happened to it ;-)!

On the other hand, all the old HP gear I have owned has worked flawlesly and, looked in detail, was really well made... Guess I was lucky!

Best regards,

JOSE

---

73 EB5AGV / EC5AAU
JOSE V. GAVILA
Ausias March 46, 15
46910 Benetusser - VALENCIA
SPAIN

** VISIT MY VINTAGE RADIO SITE - updated 8-March-1999 ***
http://www.geocities.com/SiliconValley/6992/
mailto:eb5agv@ctv.es
mailto:eb5agv@amsat.org

Date: Mon, 15 Mar 1999 07:04:23 -0500 (EST)
From: Sandra L Knepper <slkst29+@pitt.edu>

To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>, owner-boatanchors@theporch.com
Subject: Re: HP quality,....what next?
Message-ID: <Pine.GSO.3.96L.990315065744.4475C-100000@unixs1.cis.pitt.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Collins in the 60's used a light red marker paint daubed on each soldering terminal to insure that each terminal, etc. was soldered. In later years this practice was dropped. The "proof of the pudding was in the eating" - so they say, and when the radio was subjected to the vibration table and then performed flawlessly, the final Collins inspector on the assembly line sent it off to be packaged. Well, some radios did slip through with an occasional usoldered joint. I would suspect that the young lady whose responsibility it was to solder that joint was thinking of something unrelated to Collins, like that date she had with "Tom" the evening before!

But you have to give those ladies credit, they did a masterful job - didn't they. I still have not equalled the precision job that they did on those KWM-2's, etc.

Dave, W3ST
Publisher of the Collins Journal
Homepage: http://www.pixi.com/~jenkins/collins

End of BOATANCHORS Digest 2461
****

>From ???@??? Tue Mar 16 05:42:43 1999
Message-Id: <199903151803.MAA05815@sco.theporch.com>
Date: Mon, 15 Mar 1999 11:59:29 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2462

BOATANCHORS Digest 2462

Topics covered in this issue include:

1) Re: (HP) quality,....what next?
   by "Richard" <rbrunner@gis.net>
2) Re: HP quality,....what next?
   by Al Klase <skywaves@bw.webex.net>
3) Re: HP quality,....what next?

by "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
4) Re: HP quality,....what next? (not Tektronix)
by John Shriver <jas@shiva.com>
5) Re: HP quality,....what next?
by Bob Roehrig <broehrig@admin.aurora.edu>
6) URL Needed
by "Spencer Petri" <spetri@e-tex.com>
7) Volna
by Al Klase <skywaves@bw.webex.net>
8) Aligning 10B/20A CE & Indy Hamfest Report
by "Roberta J. Barmore" <rbarmore@indy.net>
9) Re: HP quality,....what next?
by "Owens, Clarence" <owensc@nebeng.otis.com>
10) aligning the 20A
by Bob Roehrig <broehrig@admin.aurora.edu>
11) HP quality,....what next?
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
12) WTB TM-11-854 (R-388) Manual
by MIKHAEL_BROWN@HP-PaloAlto-om24.om.hp.com
13) more on QC and Tektronix
by John Shriver <jas@shiva.com>
14) Phasing rigs.
by N5CM@aol.com
15) Trade items
by William Donzelli <william@ans.net>
16) Looking for Johnson Viking Valiant info
by "Ken Brookner" <brooknerk@acm.org>
17) Band-specific problem--Whutizzit?
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
18) Re: Band-specific problem--Whutizzit?
by Michael Tallent <mtallent@concentric.net>
19) (no subject)
by Sandra L Knepper <slkst29+@pitt.edu>
20) Re: more on QC and Tektronix
by John R Bookout K7JB <k7jb@uswest.net>
21) Turner Model C-4 mic stand WTB
by Sandy Gerli <angerli@esslink.com>

Message-ID: <002901be6ede$51292a80$d61e29d8@blah>
From: "Richard" <rbrunner@gis.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: (HP) quality,....what next?
Date: Mon, 15 Mar 1999 07:17:58 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Regarding equipment quality, it isn't just unsoldered leads, sometimes it never did work! My old radio club had a Yaesu FT-dx400 which went through two benighted owners before being donated to the club as a way to get rid of it. The first owner sent it back to Yaesu for repair - and it came back worse than before! The basic problem was that the solid-state VFO and buffer had insufficient output to drive the transmitter! I concluded that it never did work, but they shipped it anyway. After a long litany of changes, including addition of the WARC bands, it was a pretty decent rig.

Richard Brunner, AA1P, rbrunner@gis.net

Message-ID: <36ED0CDB.8292B15F@bw.webex.net>
Date: Mon, 15 Mar 1999 08:36:27 -0500
From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP quality,....what next?
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

In some truely "hi rel" electronics you'll find a dot of paint on EACH solder joint signifying it was inspected. The most recent place I encountered this was in a Russian "Volna" maritime recever. This was also a common practice in ARC-5 and othe military gear.

There wasn't enough money in ham gear, even Collins, for this sort of extra care.

73,
Al

--
Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: http://www.webex.net/~skywaves/home.htm

Message-Id: <3.0.1.32.19990315144641.006c41c0@192.168.0.1>
Date: Mon, 15 Mar 1999 14:46:41 +0100
To: Old Tube Radios <boatanchors@theporch.com>
From: "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
Subject: Re: HP quality,....what next?
Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Hi Al and all the BA List people,

>... The most recent place I
>encountered this was in a Russian "Volna" maritime receiver...

Are you talking about the Volna-K as the one pictured in my WEB page (look at the "Radio Museum" link in main page)?

It really seems undestructible, hi!. And also very well done.

Regards,

JOSE

----

73 EB5AGV / EC5AAU
JOSE V. GAVILA
Ausias March 46, 15
46910 Benetusser - VALENCIA
SPAIN

** VISIT MY VINTAGE RADIO SITE - updated 8-March-1999 ***
http://www.geocities.com/SiliconValley/6992/
mailto:eb5agv@ctv.es
mailto:eb5agv@amsat.org

Date: Mon, 15 Mar 1999 09:00:44 -0500
Message-Id: <199903151400.JAA11112@brill.shiva.com>
From: John Shriver <jas@shiva.com>
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: HP quality,....what next? (not Tektronix)

Well, I've never seen that sort of problem in Tektronix gear, and I have a lot of it. Quality construction was obviously a Tektronix tradition in the BA era. (Well, the assembler and inspector both sign it, to boot!)

Date: Mon, 15 Mar 1999 08:05:16 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP quality,....what next?
Message-ID: <Pine.ULT.3.96.990315075704.15099B-100000@admin.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Back in the 50's there was a series of Sylvania TV sets that we sold in the TV shop I worked at that did not have the 5U4 filament pins soldered at the socket. These sets worked for anywhere from a week to many months before the trouble appeared.

The strangest solder problem I encountered was in the power supply for the pipe organ in our church. One day, the organ just decided not to play. The supply is regulated to roughly 14V by saturable reactors. I have never seen this type of circuit. Anyway, one of the leads on the 120V primary had just plain crystallized. There had been plenty of solder there but it had turned white and flaky. I have never seen this happen since. The interesting thing was that two of the "regulators" in this supply were wired in backwards so with an increased load, the voltage actually dropped more than if there had been no regulation at all.

"Nostalgia is a thing of the past"
E-mail broehrig@admin.aurora.edu   73 de Bob, K9EUI
CIS: Data / Telecom   Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Message-ID: <000101be6eee$37d60fc0$0d2619ce@default>
From: "Spencer Petri" <spetri@e-tex.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: URL Needed
Date: Mon, 15 Mar 1999 08:14:25 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Greetings,

Does anyone have the URL for the fellow, in S.C. I believe, who sells Hammond products. Company name is STF or STI, something like that.

Somehow I've lost it here.

Thanks,

Pete

Message-ID: <36ED1779.535C5FC0@bw.webex.net>
Date: Mon, 15 Mar 1999 09:21:45 -0500

From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Boatanchors List <boatanchors@sco.theporch.com>
Subject: Volna
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Jose,

Yes, it's a Volna-K. Your web page is quite nice. My Volna was a little more heavily used. See:
http://www.webex.net/~skywaves/commrx/Volna/Volna.html

73,
Al

"JOSE V. GAVILA (EB5AGV/EC5AAU)" wrote:
>
> Hi Al and all the BA List people,
>
> >... The most recent place I
> >encountered this was in a Russian "Volna" maritime receiver...
>
> Are you talking about the Volna-K as the one pictured in my WEB page (look
> at the "Radio Museum" link in main page)?
>
> It really seems undestructible, hi!. And also very well done.
>
> Regards,
>
> JOSE
> --
>   73 EB5AGV / EC5AAU
>   JOSE V. GAVILA
>   Ausias March 46, 15
>   46910 Benetusser - VALENCIA
>   SPAIN
>
> ** VISIT MY VINTAGE RADIO SITE - updated 8-March-1999 ***
>   http://www.geocities.com/SiliconValley/6992/
>   mailto:eb5agv@ctv.es
>   mailto:eb5agv@amsat.org

--
Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822

Web Page: http://www.webex.net/~skywaves/home.htm

Date: Mon, 15 Mar 1999 09:27:51 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Aligning 10B/20A CE & Indy Hamfest Report
Message-ID: <Pine.SUN.3.96.990315085133.17803C-100000@indy1>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Dyslexia rides again!

Meant to write that you can (without much effort) easiliy tweak the sweep rate of a 'scope for two *divisions* per *ten* *degrees* with decent accuracy. Not the other way 'round! Set it so a half-wave fills 36 divisions.

...If the time-base holds variable-rate relationships when switching ranges, then you can click on up by a factor of ten and get better resolution; or you can use Lissajous figures if the 'scope's got good performance in X-Y mode, though 90 degrees has you chasing after a "perfect" circle. (Wonder if an old set of draftsman's circle guides would be handy?) Look out for non-identical X and Y amps!

I was tired yesterday--the Indy hamfest was a decent one. Missed an AF-67 (looked very clean) less PSU for $30.00 (I offered, seller refused--and then sold it for the same price a few minutes later!), and saw an RME-9D (plus the middlin'-scarce LF converter) change hands for $90. The RME had been redded up a bit--new paint job, parts replaced--had some chassis rust but looked pretty nice and was said to play fine.

Me, I just bought a bunch of books, a handful of parts, and another set of high-Z cans. Parts included yet another "Velvet Vernier" drive only,* a box of small center-link plug-in coils (mostly Johnson, five-pin) & RFCs, and a couple big variable condensers.

Met listmember Phil Metz, who was in a microwaving mood and doing well at it, along with some Command Set nifties and a Philco BC set in need of TLC. (A cathedralish battery set with 1.5V octal tubes, no less!)

Also saw my pal Rick, supermachinist, M.E. and Hartley builder, who was headed out as I was headed in--he'd already made at least one trip to stow goodies, so it'll be interesting to hear what he found!

BAs were much in evidence, along with some older sand gear. Very few keys, variable condenser pickings get slimmer every year and so do good tube sockets, but several folks had decent selections of tubes for sale. Computer junk only amounted to 20% of the table space. The hall was about 90% full, down from previous years when it was SRO, but we'd had rotten weather. A pretty good hamfest!

...Some one of these years I will build up a batch of straight keys, print up a stack of "Newcomer" booklets, and get myself a table! ...Need to work up a stone-simple brass key I can sell for ten or fifteen bucks, there really aren't any good low-end keys showing up at hamfests.

73,
--Bobbi

____
* I usually find enough parts from different vendors to *build* a National AM dial; didn't this time but I think I have at least one orphaned knob and dial in the box'o'verniers!

KB9GKX "RJ" rbarmore@indy.net   Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Content-return: allowed
Date: Mon, 15 Mar 1999 09:37:00 -0500
From: "Owens, Clarence" <owensc@nebeng.otis.com>
Subject: Re: HP quality,....what next?
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0F8N00FB64DC0I@mailman.otis.com>
MIME-version: 1.0
Content-type: text/plain

Hi All,

The Viking Valiant I traded away last year had the red paint on the solder joints and the work looked too good to have been home built, so I guess Johnson spent the extra time on at least some of their factory wired units.

73, Clare Owens N2RJB

Date: Mon, 15 Mar 1999 08:40:01 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: aligning the 20A
Message-ID: <Pine.ULT.3.96.990315083729.18774B-100000@admin.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I didn't save the original message from whoever is trying to get their 20A working. Do you have the entire Manual?

"Nostalgia is a thing of the past"
E-mail broehrig@admin.aurora.edu   73 de Bob, K9EUI

CIS: Data / Telecom   Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Message-ID: <00a201be6ef6$dbc6c680$0a00a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HP quality,....what next?
Date: Mon, 15 Mar 1999 16:03:00 +0100
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

The Viking Valiant I traded away last year had the red paint on the solder
>joints and the work looked too good to have been home built, so I guess
>Johnson spent the extra time on at least some of their factory wired units.

The Germans took this to perfection before WW2. If you look inside the Nazi military stuff "everything" had paint, even the screws holding the modules together.
But of course they were prepared for the " 1000 years Reich " so things were made to last !!! hi

73   Rag   OZ8RO

From: MIKHAEL_BROWN@HP-PaloAlto-om24.om.hp.com
Date: Mon, 15 Mar 1999 07:32:49 -0800
Message-Id: <H00011050e27ac5c@MHS>
Subject: WTB TM-11-854 (R-388) Manual
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Content-Type: multipart/mixed; boundary="openmail-part-133d93e0-00000001"

--openmail-part-133d93e0-00000001
Content-Type: text/plain; charset=US-ASCII; name="BDY.TXT"
Content-Disposition: inline; filename="BDY.TXT"
Content-Transfer-Encoding: 7bit

Need a maintenance manual for my R-388. The mil number is TM-11-854. Prefer original but will take a copy if nothing else is available.

Thanks and 73's

Mike
N6WIG

--
  Mikhael Brown   <mikhael_brown@hp.com>

--openmail-part-133d93e0-00000001--

Date: Mon, 15 Mar 1999 10:48:46 -0500
Message-Id: <199903151548.KAA11144@brill.shiva.com>
From: John Shriver <jas@shiva.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: more on QC and Tektronix

Thought more about why Tektronix's QC was so sucessful. One thing to note is that Tektronix did NOT do mechanically secure joints before soldering. Wires were not bent at the lugs at all, just straight through. Also, the ceramic strips were obviously insecure without solder. I suspect that this was a deliberate effort, so that if someone forgot to solder a joint, you got a hard (complete) failure, rather than a flaky.

From: N5CM@aol.com
Message-ID: <ef628bda.36ed2e38@aol.com>
Date: Mon, 15 Mar 1999 10:58:48 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Phasing rigs.
Content-type: multipart/mixed;
     boundary="part0_921513528_boundary"

This is a multi-part message in MIME format.

--part0_921513528_boundary
Content-ID: <0_921513528@inet_out.mail.aol.com.1>
Content-type: text/plain; charset=US-ASCII

--part0_921513528_boundary
Content-ID: <0_921513528@inet_out.mail.aol.com.2>
Content-type: text/plain;
     name="AAAA"
Content-transfer-encoding: quoted-printable
Content-disposition: inline

Hi Gang,

Yep, I make mistakes too! But unsoldered joints are not peculiar to any brand(s).

Many years ago, after using a D-104 mike for many years it quit cold. Found the ungrouded lead to the element had not been soldered. So, I guess it far more common an oversight than realized.

Re: Pesky parasitics - Had one suddenly appear in my Central Electronics 10B exciter. Nothing I did seemed to help until I wound a small choke on a 1/2 W resistor of a few ohms and put in series with I believe the grid of the tube in the stage where the parasitic seemed to originate. That was many decades ago so forgive my not remembering specifically. The parasitic was stopped cold! No further trouble.

Re: Alignment of phasing exciters. I did a "periodic" about every six months.Turned equipment on about 11 AM and about 1 PM I first checked all tubes with a good Hickok Transconductance Tube Checker. Have the settings set up on the checker than with tube tongs yank the hot tube out and immediately give it a thorough check. I replaced all leaky, gassy or weak tubes

Next, believe it or not, I aligned the SSB exciter using my HQ-129-X "S" meter. I didn't have access to a scope. I could get about 40 db suppression of unwanted sideband if I favored one sideband but this resulted in only about 30 db on the other sideband. The adjustments could be jockey'd to obtain an average of 35 db in each sideband.

Don't dare tamper with the audio phaseshift network. That is fixed - don't touch.

One of the rather common problems noticed as phasing rigs aged was their deviation from proper alignment. They got progressively worse as the years rolled by. A simple alignment without expensive laboratory equipment would have done wonders for many of those "less than the best" signals on the hambands.

Hope this helps anyone without access to good test equipment.

73,   Ken....N5CM....

=1A

--part0_921513528_boundary--

Date: Mon, 15 Mar 1999 11:09:42 -0500 (EST)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Trade items
Message-Id: <Pine.GSO.3.96.990315105930.19116C-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I have a few things that I would like to get rid of, recently purchased with a bunch of stuff:

Collins KWM-2 and KWM-2A instruction book.
  8th edition, 1st revision, 15 Feb 75. Decent shape, cover a bit worn, but the pages are nice (four have slight edge tears). This manual has all of the diagrams and schematics of the transceivers.

RCA 8122 power tube.
  1975 date code, looks new but all I can do is test for filament continuity (pins 2 and 10). No scratches, no discolorations. If the tube turns out to be bad, I will take it as a return for money.

I am looking for older things, like pre-1940 Navy radio and pre-1945 radar equipment, tubes, and manuals. I also like tubes from the 1920s and 30s. Make me an offer on some bit a junk that has been living under your stairs!

Let me know soon, as I would like to put these up on eBay if I get no trades.

William Donzelli
william@ans.net

From: "Ken Brookner" <brooknerk@acm.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Looking for Johnson Viking Valiant info
Date: Mon, 15 Mar 1999 08:47:29 -0800
Message-ID: <002501be6f03$83b4c5c0$1014a8c0@winqat>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

i picked up a viking valiant at a weekend hamfest in puyallup, wa. it's condition is unknown so far, although it appears fairly clean, but i haven't gotten it on the bench yet to take a good look. i've got an op manual on the way and have ordered the pertinent ER back issues.

in the meantime, i'd like to hear any tips about the valiant. i'll probably recap and check the resistor values before i turn it up and also check for mods already properly/improperly done.

this is the first transmitter of this type (big, heavy, plate modulated...) that i've worked on. so, if you've got any pointers to valiant information on the web (a scanned schematic someplace?) or comments on using/servicing/modifying this transmitter i'd appreciate hearing from you.

tnx & best 73,

kenb n5lpi/7

____
Ken Brookner
brooknerk@acm.org
kenb@qatrix.panther.net

Message-Id: <3.0.1.32.19990315110021.00e29580@vuse.vanderbilt.edu>
Date: Mon, 15 Mar 1999 11:00:21 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: Band-specific problem--Whutizzit?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I was tinkering with my Halli S20R last night. I never had aligned it to my satisfaction, thought I'd get serious about it and get a little entertainment on the side. Be careful what you wish for....

So it lined up very nicely, good dial accuracy, fairly decent sensitivity (5 uv or so)...on the top 3 bands. Sensitivity was more or less uniform across each of these. On the bottom (BC) band, it also set up nicely at 1400 kc. The oscillator dialed in and the two resonant circuits in front of same (one at the front end, one between the RF tube and the mixer) peaked clearly. Than I moved down the band to pad at 600 kc. Nothing. Nada. Zip. I could get noise out of the radio by turning the URM25 up to about a volt, and could position the frequency with the padder, but the sensitivity ...er...sucked. Dial back to the high end of the band, everything is fine, good performance above about 900 kc.

Huh?

The only stuff in these circuits is the transformers, the tuning caps and the trimmers.
The tuning caps seem to be OK in that the other bands are dialled in nicely. The trimmers permit setting up the high part of the band nicely (clear maxima, near the midpoint of their range). Why would the low end of just that one band be dead?

Well, I dunno. I'm gonna chase it more, but would be curious if any of the heavy hitters out there had suspicions.
              73   A. B. Bonds

Message-ID: <36ED3F83.D87016A7@concentric.net>
Date: Mon, 15 Mar 1999 12:12:35 -0500
From: Michael Tallent <mtallent@concentric.net>
MIME-Version: 1.0
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Band-specific problem--Whutizzit?
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
To: Old Tube Radios <boatanchors@theporch.com>

Maybe the het oscillator has has quit below 900 Kcs. That's all that I can think of now.

Mike T W6MXV

"A. B. Bonds" wrote:
>
> I was tinkering with my Halli S20R last night. I never had aligned it to
> my satisfaction, thought I'd get serious about it and get a little
> entertainment on the side. Be careful what you wish for....
>
>Than I moved down the band to pad at 600 kc. Nothing.
> Nada. Zip. I could get noise out of the radio by turning the URM25 up to
> about a volt, and could position the frequency with the padder, but the
> sensitivity ...er...sucked. Dial back to the high end of the band,
> everything is fine, good performance above about 900 kc.
>
> Huh?
>   73   A. B. Bonds

Date: Mon, 15 Mar 1999 12:18:42 -0500 (EST)
From: Sandra L Knepper <slkst29+@pitt.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: collins@qth.com
Message-ID: <Pine.GSO.3.96L.990315121433.14247B-100000@unixs3.cis.pitt.edu>

MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Today, I received my flea market confirmation letter from the Dayton Hamvention Flea Market Chairman. I thought that I would inform the group so everyone can anticipate their letters as well. The bottom of the letter contains a database printout on your 1999 vendor information, such as the number of gate tickets, banquet tickets, and your assigned space numbers.

Incidentally, my flea markets spots are 2317-2318, just off the end of the building near the side entrance doors. Please stop by - you will see my Collins banner.

Thought you would like to know.

Dave, W3ST
Publisher of the Collins Journal
Homepage: http://www.pixi.com/~jenkins/collins

Message-ID: <36ED42FC.EBC24276@ptld.uswest.net>
Date: Mon, 15 Mar 1999 09:27:25 -0800
From: John R Bookout K7JB <k7jb@uswest.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: more on QC and Tektronix
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

SOME ADDITIONAL THOUGHTS ABOUT TEKTRONIX and BA's.

THE AGE OF CERAMIC STRIPS and POINT to POINT SOCKET WIRING

Every Scope got its start in UNIT wiring. Since each scope consisted of many subassemblies, the unit concept was the beginning. Each chassis would first receive a unit mechanical assembly of the usual parts like tube sockets, ceramic strips etc. Then the point to point wiring and soldering for each unit. Almost all of the mechanical assembly and wiring was done by women. They were very good at what they did. Any job was made easy because a sample chassis was always provided at her work place for her to look at. Of course the old timers could complete a chassis in their sleep!

FINAL ASSEMBLY

All of the completed sub chassis assemblies would be sent to another area called final assembly. All of the mechanical chassis would be assembled and wired by a single person. All most all of the final assemble work was completed by men. The reason was that by this time scopes would weight up to 100 #s.

WALNUT BLAST!

This was an operation that was often not taken into consideration. However, never the less, every solder connection in a scope coming out of final assembly was covered with solder resin. Walnut shells, under air pressure were used to remove the rosin from ceramic strips leaving them clean an bright. This operation was much like a sand blast.

PRECAL

The next operation was done by the PRECAL group. In my opinion, this was the most exciting area to work in because the final product was turned on for the first time. One never knew when smoke could pour out of a brand new scope. So all new instruments would be brought up on a bank of 1000 Watt light bulbs in series with the instrument. The most common fault was that a silicon diode would be soldered in backwards! That would really bring the light bulbs up to full brilliance! All Tek scopes had regulated power supplies and the first rule of thumb was to make sure all power supply voltages were normal and power supplies would regulate at low and high line voltages. Then we would work on getting the CRT to provide a spot or display. Then followed by major problems with the sweep, vertical and horizontal amplifiers. The major objective of pre-cal was to make sure that there were no shorts and all major electrical faults were properly taken care of. We would also, prior to turn on inspect an instrument for bits of wire clippings. This was first done by physically rotating an instrument on the bench in the hopes that loose wire clippings would fall out. If not found, this could led to a filament short with full power applied with the result that a complete wiring harness would completely burn up!

TEST and CALIBRATION

This group would carry the instrument to its final state ready for the customer. It was up the Cal technician to make all of the internal adjustments.

DELAY LINE TUNING

All scopes which had vertical delay lines would be tuned using a fast rise step function signal. The front corner was square and sharp and the top part was tuned to be a flat line. It is a job that can take an experienced person perhaps 1/2 hour to do. Every Cal Tech was given the opportunity to try this at least once. It took me 3 hours on my first try and was not acceptable to pass QC. Gosh they were fussy!

QUALITY CONTROL

This group would take the instrument from the Cal Tech and recheck all of the adjustments making sure that they made catalog specs. QC techs were the old timer Cal techs. In all of the steps starting at the Pre

Cal, the tech had to sign off on his or her work and provide the number of hours to make the scope ready. The QC was the most important and all Cal Techs dreaded a bad QC report!

CABINETIZING
This group would clean up an instrument and turn it on for the last time prior to being boxed and delivery made to the factory warehouse. All of the manuals and paper work were included by this group.

In all of the time I spent there, I never found a joint that was not soldered. I did find several cold solder joints were the solder flowed but did not tin to the wires! It just needed to be reheated. The cold solder joint was most apparent when you could take a wire push on it and see it move in its soldered location. This was caused by rosin completely surrounding the wire and not enough heat provided to make the solder flow.

Once I found a ceramic strip where during manufacture, a through hole had developed inside the ceramic between two adjacent notches. This was a short circuit of course and often difficult to find because you were not looking for this to happen!

Hope you enjoyed this bit of Tektronix history and the trouble spent to make the worlds finest Oscilloscopes. These are the tools that help us fix our BA's.

73's John K7JB

John Shriver wrote:

> Thought more about why Tektronix's QC was so sucessful. One thing to note is that Tektronix did NOT do mechanically secure joints before soldering. Wires were not bent at the lugs at all, just straight through. Also, the ceramic strips were obviously insecure without solder. I suspect that this was a deliberate effort, so that if someone forgot to solder a joint, you got a hard (complete) failure, rather than a flaky.

--
Best 73's John
Amateur Radio K7JB -- Portland Oregon 97229

[K7JB is looking for a KWS-1 for his Collins A-line station.]

Message-ID: <36ED4A33.698023B9@esslink.com>

```
Date: Mon, 15 Mar 1999 12:58:12 -0500
From: Sandy Gerli <angerli@esslink.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Turner Model C-4 mic stand WTB
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi,

This is the stand for the Turner Model 80 mic. Anyone have one to
sell???

73,

--
Sandy Gerli, AC1Y
500 Country Club Road
Avon, CT  06001-2406
(860) 675-5566
E-Mail: angerli@esslink.com

Life Member: ARRL, QCWA
Collins Collectors Association
Hallicrafters Collectors Association

Boatanchors are Ham Radio's living heritage!
Get in touch with 'em. Restore something! Smell that hot solder!
Sure beats booze. And, you can get up afterwards...

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End of BOATANCHORS Digest 2462
******************************


>From ???@??? Tue Mar 16 05:44:23 1999
Message-Id: <199903160500.XAA10936@sco.theporch.com>
Date: Mon, 15 Mar 1999 22:59:59 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2463

                  BOATANCHORS Digest 2463

Topics covered in this issue include:

  1) Re: HP 200 AB
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by Jderm740@aol.com
2) RE: HP quality,....what next?
by "Jim Berry" <basalop@gte.net>
3) RE: HP quality,....what next?
by William Donzelli <william@ans.net>
4) R-1004A and T-784 for trade
by Pete McCollum 15-Mar-1999 1150 -0600 <mccollum@ssdevo.ENET.dec.com>
5) RE: HP 200 AB
by "Ed Tanton" <n4xy@mindspring.com>
6) For Sale HF Rigs
by "ALLEN,JIM (HP-Cupertino,ex1)" <jim_allen@am.exch.hp.com>
7) Re: more on QC and Tektronix
by Bill Hawkins <bill@iaxs.net>
8) RE: Looking for Johnson Viking Valiant info
by "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
9) Re: HP 200 AB
by Richard Post <post@ouvaxa.cats.ohiou.edu>
10) Battery voltage???
by Roy Morgan <roy.morgan@nist.gov>
11) Serendipity
by Jderm740@aol.com
12) The devil made me do it...
by Ralph Parker <rparker@istar.ca>
13) Point-to-Point versus Printed Circuit, was: HP quality,....what next?
by "Barry L. Ornitz" <ornitz@tricon.net>
14) Re: Point-to-Point versus Printed Circuit, was: HP quality,....what next?
by Scott Robinson <spr@earthlink.net>
15) FS: Mackay Receivers...NEW!
by Sandy W5TVW <ebjr@worldnet.att.net>
16)
by JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)
17) Re: Point-to-Point versus Printed Circuit, was: HP
quality,....what next?
by Jack Harper <jharper@bsi2000.com>
18) Re: Aligning 10B/20A CE & Indy Hamfest Report
by "Robert Nickels" <ranickel@mwci.net>
19) Re: HP quality,....what next?
by GEORGE J MISIC <ke8rn@juno.com>
20) Re: Point-to-Point versus Printed Circuit......
by "Tom R. Rice" <tomrice@netcom.com>
21) Re: Old Tubes- Brown base-gluing compound.
by "Barry L. Ornitz" <ornitz@tricon.net>
22) BNC twinax connectors needed
by Tom Norris <badger@telalink.net>
23) Re: Band-specific problem--Whutizzit?
by Arden Allen <gumbear@pacbell.net>
24) Re: Point-to-Point versus Printed Circuit, was: HP quality
by "Barry L. Ornitz" <ornitz@tricon.net>

From: Jderm740@aol.com
Message-ID: <46e4cc29.36ed4cea@aol.com>
Date: Mon, 15 Mar 1999 13:09:46 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Re: HP 200 AB
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Dan

Gently, VERY GENTLY, try Acetone to remove the magic marker. Use a Q tip and pat the offending lettering, rather then rubbing. The Q tip will keep your efforts from spreading to other surfaces. And, if that doesn't work, that will be the only area that has to be repainted. Have you tried any of the car touch-ups? They have more different colors than nature ever intended.

Jack   Jderm740@aol.com

From: "Jim Berry" <basalop@gte.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: HP quality,....what next?
Date: Mon, 15 Mar 1999 10:26:27 -0800
Message-ID: <002201be6f11$56a2f580$de44fdd0@default>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Back in the 60's you could buy ARC-5 gear for buck or two per unit. I remember buying like 12 for 10 buxs. These were pulls from aircraft and may not have been on the usual ham bands so it was common practice to take them apart for the parts. What was fun about these was they often had little notes scribbled inside of them. All had the dab of red paint on each solder point, but that did not mean they were soldered. Many were not, but still had the dab of red paint.
Wish I had all this gear now in one piece.

73 Jim K7SLI

Date: Mon, 15 Mar 1999 13:37:54 -0500 (EST)
From: William Donzelli <william@ans.net>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: HP quality,....what next?
Message-Id: <Pine.GSO.3.96.990315133443.19116O-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> Back in the 60's you could buy ARC-5 gear for buck or two per unit. I
> remember buying like 12 for 10 buxs. These were pulls from aircraft and may
> not have been on the usual ham bands so it was common practice to take them
> apart for the parts. What was fun about these was they often had little
> notes scribbled inside of them. All had the dab of red paint on each solder
> point, but that did not mean they were soldered. Many were not, but still
> had the dab of red paint.

I found (and still have) a brand new coil set to a Navy model GF-12
(basically the "first" generation command set) that was built upside down,
yet still managed to make its way out the door. Thank heavens that it
never was needed during the war, because they would need a big hammer to
get all of those pins on the coils to line up.

William Donzelli
william@ans.net

Message-Id: <9903151850.AA06650@us3rmc.cxo.dec.com>
Date: Mon, 15 Mar 99 11:50:32 MST
From: Pete McCollum 15-Mar-1999 1150 -0600 <mccollum@ssdevo.ENET.dec.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: R-1004A and T-784 for trade

I have an R-1004A/GRC-109A, and a T-784/GRC-109 that I would like to
trade for RS-1 component(s).
For example, I would like an RR-2B receiver, plus ???.

Other stuff of the same ilk would be considered.

Note that the R-1004A is the "A" model - it has the handy hasp
fasteners on the lid, plus a handle built into the case.
The receiver can be seen on my Web page (go to the RS-1 and GRC-109
section):

   http://www.geocities.com/ResearchTriangle/Node/7408/

The T-784 was refurbed at Tobyhana in about 1982.
I hear that Fair still has transmitters, but they now cost
$60 each, and they are the RT-3 model (no GRA-71 connector).

Thanks,

Pete

From: "Ed Tanton" <n4xy@mindspring.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: HP 200 AB
Date: Mon, 15 Mar 1999 14:04:30 -0500
Message-ID: <005701be6f16$a793d680$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
    charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Hi Dan... you might try denatured alcohol (not the "rubbing" type-although you can try it too). I have had pretty good luck with one or the other... you really risk your paint finish with acetone.

72 / 73 Ed N4XY email: <n4xy@mindspring.com>

Message-ID: <1D49F515E2BAD211893E00A0C996864106B204@xcup01.boi.hp.com>
From: "ALLEN,JIM (HP-Cupertino,ex1)" <jim_allen@am.exch.hp.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: For Sale HF Rigs
Date: Mon, 15 Mar 1999 12:16:49 -0700
MIME-Version: 1.0
Content-Type: text/plain;
    charset="iso-8859-1"

I have the following for sale:

Galaxy V Mark III Transceiver with power supply, external VFO, console with clock and phone patch, external CW filter, 2000B Amplifier (with 8 spare finals) with power supply, manuals - Good/Very Good Condition $450

Heath HW101 Transceiver with manual and Power Supply/Speaker - Excellent Condition $150

Galaxy 300 Transceiver with Power Supply and manual - Excellent Condition $300

National NXC 500 Transceiver with Power Supply, Crystal Calibrator (home made) and manual - Excellent Condition $225

Millen Grid Dipper with 7 coils (missing the G Coil), Coil stand - Fair/Good Condition seems to work but not Guaranteed $50

Shipping extra. E-Mail or Call 408-447-4802 d or 650-968-0640 n

Thanks,

Jim

NU6AM

Date: Mon, 15 Mar 1999 13:19:50 -0600 (CST)
From: Bill Hawkins <bill@iaxs.net>
Message-Id: <199903151919.NAA27375@citrus.iaxs.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: more on QC and Tektronix

Y'know, just when it seems like there's nothing new to talk about, along comes a thread that generates a detailed reply like K7JB's. We get history that isn't in books (and I've read some good Tek books) and a new perspective on why Tek scopes were top of the line.

Thanks, John

Regards,
Bill Hawkins

Message-ID: <21B46CBD022AD1118F0500805F15A06801106792@stpmsx05.stp.guidant.com>
From: "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Looking for Johnson Viking Valiant info
Date: Mon, 15 Mar 1999 13:23:35 -0600
MIME-Version: 1.0
Content-Type: text/plain

Hi Ken,

Congratulations on getting your new Valiant. It is a great transmitter and alot of fun to operate!   I bought one 2 years ago and continue to use it weekly on cw and AM. Here is a couple of things I found with mine and would recommend you look into also.

1. Replace the 866 high voltage rectifiers with a pair of 3B28's . Don't wait for one to fail, do it now. While the 866's are more nostalgic and prettier to look at, they have a tendency to fail shorted and could possible take out your hv transformer. One of my 866's shorted but did not damage the transformer.

2. Since you are poking around, open up the VFO cabinet and replace that

18K resistor that is in series with the OA2 voltage regulator. I don't have the schematic at hand, but its the 18K series resistor feeding the VFO voltage regulator. Replace it with a 5 or 6 watt part. The resistor in there is underrated and is slowly burning up. Mine finally burned up and damaged several tubes. I put the replacement 6 watt part on a new terminal strip mounted under the chassis. There is a convenient rubber grommet to run the wires through into the vfo compartment. Helps reduce heat in the vfo compartment. This is a known problem to Rangers and Valiants.

3. You mention recapping. I would only recap if something is wrong. If the caps are working fine, there may be no immediate need to replace them unless you just want to replace them all.

4. Buy a manual. You can get a nice manual from W7FG manuals, plus others. There is other good information in there besides the schematic.

Good luck with your Valiant.

73, Scott WA9WFA in Saint Paul Minn
Looking for a clean Johnson Ranger II

Message-Id: <v03007805b3130e34205d@[132.235.46.183]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Mon, 15 Mar 1999 14:36:12 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Richard Post <post@ouvaxa.cats.ohiou.edu>
Subject: Re: HP 200 AB

Dan,

Have had success with cheap isopropyl rubbing alcohol and a soft toothbrush on magic-markered Heath products. I would try that before going to acetone which I have used to remove paint. First thing to try is one of the waterless handcleaner formulations (NOT pumice). Trick for either of these is to leave it on the marking long enough. Use the toothbrush to gently scrub.

I have used the alcohol/ toothbrush method to successfully remove a second layer of spray paint put on long after the original on a Halli S-40A. (Yep, the guy who spray painted the radio sprayed right over the control markings. Good thing he did not prepare the surface properly before spray painting.)

Rich
>Dan
>

>Gently, VERY GENTLY, try Acetone to remove the magic marker. Use a Q tip and
>pat the offending lettering, rather then rubbing. The Q tip will keep your
>efforts from spreading to other surfaces. And, if that doesn't work, that will
>be the only area that has to be repainted. Have you tried any of the car
>touch-ups? They have more different colors than nature ever intended.
>
>Jack   Jderm740@aol.com

==
Boatanchor Pix website - KB8TAD
http://oak.cats.ohiou.edu/~postr/bapix/
mailto:postr@ohiou.edu
visit the Museum of Radio and Technology website
http://oak.cats.ohiou.edu/~postr/MRT/

Message-Id: <3.0.32.19990315154208.00d22ab0@sdct-sunsrv1.ncsl.nist.gov>
Date: Mon, 15 Mar 1999 15:42:09 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Roy Morgan <roy.morgan@nist.gov>
Subject: Battery voltage???
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Gary,

Those batteries are very likely mercury batteries.

I have such a strobe light and battery. I used to carry them while flying helos with the Navy.

My advice is to be somewhat careful if you try to take it apart. I don't know the voltage, but if you take it apart and can count the cells inside, you can estimate the voltage needed.

At least one ham-fest outfit carries a lot of military batteries. A search among suppliers of aviation safety and survival gear may turn up a source for replacement batteries.

Let us know what you find out.

Roy

>To: Old Tube Radios <boatanchors@theporch.com>
>From: Gary Pewitt <gpewitt@execpc.com>
>Subject: Battery voltage???

>Mime-Version: 1.0
>Content-Type: text/plain; charset="us-ascii"
>
>BA folks,
>In a recent radio trade I acquired two aircrew survival vests
...
>a couple of strobe lights. They are SDU-5\E and use drycell? batteries
>marked DRY BA-1574/U. The batteries are black with a
>white rubber plug on one end
 ...
>I need to know the proper voltage and if the batteries are safe to
>drill or otherwise modify.

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899
(National Institute of Standards and Technology)
301-975-3254 Fax: 301-948-6213 roy.morgan@nist.gov --

From: Jderm740@aol.com
Message-ID: <8887a9a5.36ed81a1@aol.com>
Date: Mon, 15 Mar 1999 16:54:41 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Serendipity
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Sometimes I'm so smart I scare myself. I was rooting through some stuff and ran across two lazy susan bearings I bought for a never completed project. These are 12" in dia and obout 1/4" thick. Then I ran across a leftover piece of shelveing about 24" long. Why not put the together says I. This I did. Ploped the bearing on the work bench. Ploped the board on top and put a scope I'm working on on top of the board.
Neat. Now I can spin the scope around to get from one side to the other and NO HERNIA.
Next project will be a Jib Crane to lift the big BAs up onto the bench. At my age I have to be kind to my best friends. No not the dogs.

Jack

Message-Id: <3.0.5.32.19990315140020.007cd700@istar.ca>
Date: Mon, 15 Mar 1999 14:00:20 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Ralph Parker <rparker@istar.ca>
Subject: The devil made me do it...
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang:
So I went to the Puyallup (WA) swapmeet.
In spite of the fact that the BA shelves are almost full, I was overcome by some strange desires, and now I need manuals (and hints) for the following:

B&W 5100B (looks OK under all the dust)

National RBL-5 (ditto)

Also bought my first R-392. Cheap, but lots of tubes missing. Said to work.
Anyone have the following spares? 26A6 (x7); 26C6 (x2); 26A7; and whatever is in the PTO (can't see anything printed on the chassis, and the socket is empty).
And advice on the ss audio module replacement.
And a PO has cut the wires off the meter terminals. Why would they do that?

TIA,
Ralph, VE7XF

Message-Id: <199903152357.SAA11300@flash.naxs.net>
From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Point-to-Point versus Printed Circuit, was: HP quality,....what next?
Date: Mon, 15 Mar 1999 18:55:49 -0500

I think Arden hit on a good issue with older gear. The problem is really one of point-to-point wiring.
This was the real reason printed circuit boards were developed - to minimize wiring errors. It is unfortunate that the early paper-phenolic board material had its own problems. But with the introduction of glass-epoxy in military equipment in the late 1950's, most of these were solved. In fact, the first integrated circuits were also developed to eliminate wiring errors. Even in the early 1950's it was seen that the construction of huge computers was not possible with discrete components and the millions of connections required.

While old-timers might lament the passing of point-to-point wiring which can be readily modified and repaired, the introduction of printed circuit boards dramatically increased the reliability of equipment. For some reason, many old-time hams are reluctant to repair printed circuit boards - probably because of their experiences with the rotten phenolic material of the 1940's and 50's. Repairing glass-epoxy boards is really quite simple with a little experience and the right tools. When building new equipment, I virtually ALWAYS use printed circuit wiring, even with vacuum tube gear. It is so much easier to use.

73, Barry L. Ornitz   WA4VZQ   ornitz@tricon.net

Message-ID: <36EDA3A3.3EDA1802@earthlink.net>
Date: Mon, 15 Mar 1999 16:19:47 -0800
From: Scott Robinson <spr@earthlink.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Point-to-Point versus Printed Circuit, was: HP quality,....what next?
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Barry L. Ornitz wrote:
>
 When building new equipment,
> I virtually ALWAYS use printed circuit wiring, even with vacuum tube gear.
> It is so much easier to use.
>
>
I do not agree. It costs a fortune (hundreds of dollars or more) to get even ONE PC board made, even though I can do the design for free. I can build traditional one offs much more easily, and modify them later, too.

In fact, building SS circuits is essentially impossible now, with the demise of Speed-wire. There just is no reasonable way to build one of anything any more, and so, with great frustration, I don't.

Now if someone will make a resist that can be developed from transparencies printed in a laser printer, then PC boards get much easier.

This is opinion, and signed as opinion.

--
Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Sandy W5TVW <ebjr@worldnet.att.net>

Subject: FS: Mackay Receivers...NEW!
Message-Id: <19990316011504.GPKQ26062@LOCALNAME>
Date: Tue, 16 Mar 1999 01:15:04 +0000

This goes under the category of Solid state "boat anchors" so hope we are no off topic here!

I have run across three new Mackay Radio racks full of never used gear! It looks pristine.

Equipment of note is:
Mackay model 3020 receiver,
Mackay model 3030 receiver
Mackay model 2017 400-515 Khz CW transmitter

Three of each.

If you may be interested, let me know by direct e-mail. I will act as go between in the negotiations on prices. Please discuss this only with me directly and not on the reflector.

73,
Sandy W5TVW

MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit
Date: Mon, 15 Mar 1999 20:33:07 -0500 (EST)
Subject:
To: Old Tube Radios <boatanchors@theporch.com>
From: JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)
Message-ID: <9903152033.aa15195@pcusa01.ecunet.org>

The CE PS-1 phase shift network should *never* be touched!! The paint is on the trimmers for a good reason!

I've check 4 PS-1's and never found them to need any adjustment. Very stable circuit. BTW, it's used in CE's 10A, 20 & Model A & B slicers.

Not appreciated is that audio distortion, which can produce products above 3000 Hz, will make it impossible to get proper sideband suppression. This is because the SSB generator is not designed to give the right phasing relationships (for SSB) outside of 300-3000 Hz. So the higher audio freq stuff gets thru, i.e. is not suppressed. Cure is to put a sharp LP filter at the output of speech amp. Triad (or some xfmr mfr) sold a passive filter just for that purpose, I've got one which came out of a 10A.

Same kind of thing can happen if your AF generator is not low enuf distortion or you're overdriving the speech amp.

LSB on 75 & USB on 20 came to be as many early SSB rigs generated sig at 9 MHz, then subtract or add 5 MHz VFO to come out on 75 and 20 m, respectively.

Am away from home for weeks, so can't comment on RF phase shift circuits.

-John Sehring (Sun, Mar 14, 1999 @ Zion IL USA) UCC WB2EQG
"Live long and prosper" --John 10:10b

Message-Id: <4.1.19990315190230.00acf160@mail.pcisys.net>
Date: Mon, 15 Mar 1999 19:04:20 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Jack Harper <jharper@bsi2000.com>
Subject: Re: Point-to-Point versus Printed Circuit, was: HP quality,....what next?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 06:55 PM 3/15/99 -0500, Barry Ornitz WA4VZQ wrote:

<snip>
>This was the real reason printed circuit boards were developed - to
>minimize wiring errors.
<snip>

...not to mention the huge cost savings in manufacturing..

Regards

Jack, W0YJ (Still working on the Hammarlund HX-50 -- Making good progress)

Jack Harper BSI2000, Inc.
303-231-9095 Lakewood, Colorado USA

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Message-ID: <01e801be6f51$899f38a0$8c2fcfd1@default>
From: "Robert Nickels" <ranickel@mwci.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Aligning 10B/20A CE & Indy Hamfest Report
Date: Mon, 15 Mar 1999 20:00:48 -0600
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>   ...Some one of these years I will build up a batch of straight keys,
>print up a stack of "Newcomer" booklets, and get myself a table! ...Need
>to work up a stone-simple brass key I can sell for ten or fifteen bucks,
>there really aren't any good low-end keys showing up at hamfests.
>

Hi Bobbi and the rest,

Good idea! That's the kind of key I like (too clumsy to use a bug and a keyer lets my sendin' exceed my receivin'...)

But I bought a keyer paddle at the Sterling IL hamfest yesterday just because it was the cleverest thing I'd seen all day!   It's called a "Bulldog Iambic", designed by K9LU, and believe it or not, it's made out of a modified "Bulldog" brand paper clip! The cost is 20 bucks, and it works very well!   Even comes with a solid oak base!

For more info: http://www.qth.com/k9lu/

I've got no interest in this, and he's not a relative ;-)   But I just figured that ham ingenuity like this deserves a plug!

73, Bob W9RAN

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com, wa8mlv@juno.com
Subject: Re: HP quality,....what next?
Message-ID: <19990315.225044.6535.0.KE8RN@juno.com>
From: GEORGE J MISIC <ke8rn@juno.com>
Date: Mon, 15 Mar 1999 21:56:17 EST

Interesting thread... Especially since yesterday evening! My lovely and charming wife Barbara and I were watching the X-Files, and I was resurrecting my old P & H DI-1 RF Monitor Scope [predecessor to the HO-10]. It worked the last time I used it [1982], but last night the trace was very weak and the centering controls acted oddly. I opened it up, and, after empirically checking the HV with my right palm, we spied a lead to the CRT that had NEVER BEEN SOLDERED. In the last 17 years, it oxidized enough to no longer make contact. It works great again, but I doubt that P & H will cover this under warranty. 73; have fun!

George KE8RN

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or call Juno at (800) 654-JUNO [654-5866]

From: "Tom R. Rice" <tomrice@netcom.com>
Message-Id: <199903160257.SAA18563@netcom9.netcom.com>
Subject: Re: Point-to-Point versus Printed Circuit......
To: Old Tube Radios <boatanchors@theporch.com>
Date: Mon, 15 Mar 1999 18:57:31 -0800 (PST)
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit

>
> <snip>
> >This was the real reason printed circuit boards were developed - to
> >minimize wiring errors.
> <snip>
>
> ...not to mention the huge cost savings in manufacturing..
>

Well, when I was at ITT Labs in the early sixties, we routinely re-worked the electronics boxes on our Ampex 354 recorders, which used PC boards with tube circuitry. By judicious re-location of various parts and wires, we easily gained 5 - 6 dB in S/N ratio (~45 dB was normal, we got 50+ after the re-work), so I suspect that the cost savings aspect was the paramount factor.

73 de WB6BYH

--
"Start off every day with a smile and get it over with." --W.C.Fields
Tom R. Rice
tomrice@netcom.com

Message-Id: <199903160340.WAA01502@flash.naxs.net>
From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Old Tubes- Brown base-gluing compound.
Date: Mon, 15 Mar 1999 22:38:35 -0500

I already replied directly to Dave since I saw it first on Usenet, but the material properties might help describe the glue to the readers of this list.

David Stinson wrote:

>Can anyone tell me what the brown, bubbly-looking compound
>used for sticking the bakelite bases of older tubes is?
>And is there some way to make it turn loose without
>breaking the glass?

I believe it is a alkyd-phenolic resin. Being a thermoset, there is no solvent that will attack it that will not attack the rest of the base and go through rubber gloves too. Be patient and flex the base a little at a time (a very little) in a vise to break it loose. The glue is extremely brittle.

Added note: you can also do as others suggested - use the tube in a place where it is important that the glue NOT break loose! :-)

73, Barry L. Ornitz WA4VZQ ornitz@dpnet.net

Message-Id: <3.0.5.32.19990315221455.0080c210@mail1.telalink.net>
Date: Mon, 15 Mar 1999 22:14:55 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <badger@telalink.net>
Subject: BNC twinax connectors needed
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Yep, BNC twinax connectors. Need a couple. These are NOT the more commonly found concentric BNC twinax fittings as can be had from Surplus sales, these have their center connector area split into a male half and a female half. gold plated* as well, at least the ones I have are. Have seen these in the past used on lab gear, so know they must exist somewhere. Trompeter was the mfg of my current stock of one connector.

Needed for a CEI VLF-354 receiver project. (which will, oddly enough contain tubes when I am done with it, he said, to satisfy the BA list requirements)

Anyone needing a pic to get an idea of what I am looking for
I can scan the end of the one I have for you and email as an
attachment.

Thanks all!

Tom KA4RKT

*as is the CEI receiver. Every chassis is gold flashed on the inside and
silver plated outside. The input filter is gold plated in and out, and the
connectors are gold as well. Odd, I though, but I guess that is what
makes the darned CEI and Watkins-Johnson stuff cost so much.

Date: Mon, 15 Mar 1999 20:14:46 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Band-specific problem--Whutizzit?
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0F8O00MB46F2FZ@mta3.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi AB;

> Well, I dunno. I'm gonna chase it more, but would be curious if any of
the
> heavy hitters out there had suspicions.

It could be the local oscillator level is dropping off so much below 900 Kc
the conversion gain goes into the (bleep). I've run into that problem
before. Using a voltmeter with a 1meg or higher isolation resistor at the
probe tip (like of typical VTVM or yore) look at the oscillator grid for
the level of grid leak bias across the band. If the bias voltage drops off
radically as you go down in frequency that is your problem. What's the
cause? Most likely leaky cap, maybe grundge in an adjustable paddder or
trimmer. Bad tube. Resistor way off value. Low screen voltage. That's
five swings of the bat, let me know if I made it to first base!

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

Message-Id: <199903160501.AAA14314@flash.naxs.net>
From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Point-to-Point versus Printed Circuit, was: HP quality

Date: Mon, 15 Mar 1999 23:59:40 -0500

My ISP seems to be having mail problems (like losing messages). I sent this several hours ago but a recent post of mine has shown up and this one has not. Please forgive me if a duplicate is sent later by my ISP.

Barry WA4VZQ ornitz@tricon.net

Scott Robinson wrote about printed circuit boards:

>I do not agree. It costs a fortune (hundreds of dollars or more)
>to get even ONE PC board made, even though I can do the design
>for free. I can build traditional one offs much more easily, and
>modify them later, too.

You are paying far too much. For $250, I can email my Gerber file to a board house in the western end of Tennessee. One week to 10 days later I have 20 double-sided boards, approximately 3x4", with plated through holes and even solder mask (generally not necessary unless very fine lines are used) and silk screening only adds a few dollars more. Multilayer boards, of course, are somewhat more expensive. For the wide lines and low density of tube circuits,
single-sided board is often adequate.

>In fact, building SS circuits is essentially impossible now, with
>the demise of Speed-wire. There just is no reasonable way to
>build one of anything any more, and so, with great frustration, I
>don't.

There are two prototyping systems known generically as speed-wire. One uses a special board with insulation displacement connectors (much like telephone punch down blocks). If you are careful, the system is fairly reliable. Too many wires in one connector or removing too many wires can bend the IDC and lead to poor contacts. These are quite expensive.

The other one uses an enameled wire and wire-wrapping techniques. The enamel is soft and with the application of a soldering iron, it burns away allowing a connection to be soldered. When at Eastman, my instrumentation group tried this in the very early 1980's and quickly gave it up for conventional wire-wrapping. The enamel is so soft that it is easily nicked in places it should not be, causing intermittent shorts. The insulation is not suitable for high voltage either. Another variation of speedwire is the "slit-and-wrap" approach which is even less reliable.

Conventional wire-wrap using the proper tools and proper pins is exceptionally reliable, however. Stripping the little wires is a pain, though, if you do not buy assortments of precut lengths. I have had my wire-wrap tools for over 30 years and I even inherited some older 24 gauge tools used in vacuum tube days. One of the $25 hobby wrap-tools does just fine; the electric wrap guns are a luxury that are hardly worth the cost unless you do this for a living.

>Now if someone will make a resist that can be developed from
>transparencies printed in a laser printer, then PC boards get
>much easier.

For vacuum tube circuits with low parts density, an ordinary Sharpie permanent ink marker can be used to draw the circuit by hand. The rub-on transfers work well too. Alternately you can use model airplane paint. Surplus PC board material is often found at hamfests quite inexpensively. This is often the edges and off-spec material from commercial processes. This might make a difference for automated board production, but it is fine for amateur use. Just polish the copper with a Scotch-brite pad before working with it.

While at Eastman, I generally did single boards by using a laser printer on a transparency. The software would do the B/W reversal. The board I used was a dry film laminate circuit board which is exposed through the transparency and develops in sodium carbonate. I later ordered the raw dry film and would laminate my own boards using nothing more than my wife's clothes iron. I always built a prototype by this method before sending my layout to the board shop.

There are new high temperature plastic sheets (TEC 200 is one name) that can be fed through a laser printer. They are then turned upside down and ironed onto the copperclad board. Essentially the laser toner leaves the film, sticks to the copper, and after the film is pulled off, the toner becomes the resist.

I have not tried it yet, but I have read in several places that Epson paper for photograph printing with an ink jet printer can be used similarly. The paper has a clay finish which is the key to its operation here. The laser printer puts down the toner. After ironing this to a board, the board and paper are immersed in plain water. The paper will fall apart leaving just the traces on the copper. The clay allows for a clean separation. Morris Odell has recently told me that this method works exceptionally well. If you do not have a laser printer, you can copy the circuit using a regular photocopier onto the Epson paper. Unfortunately not all paper works according to Morris.

Printed circuit tube sockets are available from Antique Electronic Supply and others. In fact, I have made custom tube sockets using a CAD program and connector pins like machine-pin sockets, Molex/Waldom connectors, and D-sub female pins. In fact, Mill Max makes a whole line of pin receptacles and pins (check Digi-Key for these).

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        73,  Barry     WA4VZQ     ornitz@tricon.net


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End of BOATANCHORS Digest 2463
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